STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0002470
Owner:	Specialty Brands, L.P.; Windsor Frozen Foods
Address:	3355 W. Alabama St., Suite 730, Houston, TX 77098
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Specialty Brands, Inc.
Facility Address:	5691 S. Divinci Lane, Carthage, MO 64836
Legal Description:	NW ¼, SE ¼, Sec. 33, T28N, R31W, Jasper County
Receiving Stream:	Unnamed Tributary to Center Creek (U)
First Classified Stream and ID:	Center Creek (P) (03203) 303(d)
USGS Basin & Sub-watershed No.:	(11070207-110003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 – Food Processing - SIC #2038
Dissolved air flotation / flow equalization / activated sludge / ultra-violet disinfection / sludge storage basin / sludge in land applied / domestic sludge from septic tank is hauled to a POTW.

Design flow is 100,000 gallons per day.
Actual flow is 56,000 gallons per day.
Design sludge production is 226 dry tons/year.
Actual sludge production is 141 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

January 16, 2003
Effective Date

January 13, 2005
Revised

Michael D. Wells, Interim Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

January 15, 2008
Expiration Date

R. Bruce Martin, Director, Southwest Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001						
Flow	MGD	*		*	once/day	24 hr. total
Biochemical Oxygen Demand$_5$	mg/L		45	30	once/month	24 hr. comp.
Total Suspended Solids	mg/L		45	30	once/month	24 hr. comp.
pH – Units	SU	***		***	once/month	grab
Fecal Coliform**	#/100mL	1000		400	once/month	grab
Oil & Grease	mg/L	20		15	once/month	grab
Ammonia as N	mg/L	*		*	once/month	grab
Total Phosphorus	mg/L	*		*	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE. FEBRUARY 28, 2005 THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

** Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

C. SPECIAL CONDITIONS

1. Report as no-discharge when a discharge does not occur during the report period.

2. Permittee is to abandon the treatment facilities described herein and shall connect the tributary waste load to trunk sewers within 90 days of notice of availability if trunk sewers operated by one of the authorities outlined in Section (3)(B)1 or 2 of Clean Water Commission Regulation 10 CSR 20-6.010 are made available to the site during the time a valid discharge exists.

3. This permit may be reopened and modified or alternatively revoked and reissued, to incorporate new or modified effluent limitations or other conditions, if the result of a wasteload allocation study, toxicity test, or other information indicates changes are necessary to ensure compliance with Missouri's Water Quality Standards.

4. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

   (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.

C. SPECIAL CONDITIONS (continued)

5. Industrial Sludge and Biosolids Use

(a) The condition applies to all sludge production including, but not limited to, a wastewater treatment lagoon, sludge storage basins, and Dissolved Air Flotation sludge.

(b) Sludge that is land applied shall be applied at agricultural rate for beneficial use and shall not exceed the nitrogen uptake values for the crop being grown.

(c) Permittee shall comply with all provisions of the University of Missouri Extension guide WQ 426 Best Management Practices for Biosolids Land Application except item 2 and 6 under Best Management Practices.

(d) Permittee shall submit an annual report summarizing sludge spreading for the year. Included, but not limited to, in the report shall be location of each site, crops grown and harvested, crop yields, total sludge applied to each site in dry tons per acre, dates applied, nitrogen application rate in pounds per acre, and testing results.

(e) Monitoring requirements for the sludge going to the field shall include percent total solids daily during application; nitrogen, (all forms, organic, ammonia, and nitrate as N) once per month; total phosphorus and total potassium once per year; arsenic, cadmium, chromium, copper, nickel, zinc, and lead. All metals shall be tested as total once per year and shall be reported as total metals on a dry weight basis. The metals testing may be eliminated if concentrations are not considered significant by the department after the first two years of data.

(f) Plant Available Nitrogen Procedures

Land application rates shall not exceed the nitrogen uptake requirement for the specific crop harvested from each field based on the plant available nitrogen approach (PAN). The PAN formula in the permit is based on the net difference of the MR, OR, and VR Factors when considering additions for nitrogen in precipitation, dry deposition, and foliar absorption and off setting deletions for denitrification and other losses.

The following reference publications may be used for the crop nitrogen requirements (CNR): Livestock Waste Facilities Handbook, Midwest Plan Service, MWPS-18, April 1993 and Agricultural Waste Management Field Book, USDA, Natural Resources Conservation Service (NRCS), April 1992. Alternate reference publications may be used only upon prior approval by the department and shall be listed in the approved Operation and Maintenance Manual.

The wastewater / sludge / solids land application rate in pounds / acre / year of nitrogen shall be determined using the following procedure.

wPAN = CNR – sPAN

(1) **wPAN** means plant available nitrogen from wastewater, sludge and solids as follows:

wPAN = [(TKN – ammonia N) x MR] + [ammonia N x VR]

MR = mineralization rate factor for organic N by year and by waste type. Mineralization or organic nitrogen in animal manure is slowly released over the first three years but reaches a constant by the third year when animal wastes are added every year. MR factors are as follows:

Time after Application Year	Factor Each Year	Cumulative Factor For Applications in Consecutive Years
0-1	0.40	0.40
1-2	0.20	0.60
2-3	0.10	0.70*

* Cumulative factor is constant for year 3 and thereafter. If waste material is applied each year at similar application rates, use the cumulative factor for the third year and thereafter. If wastes are not applied every year or if application rates vary significantly from year to year, use the appropriate factor for each year and sum the totals for the most current three year period.

C. SPECIAL CONDITIONS (continued)

5. Industrial Sludge and Biosolids Use (continued)

VR = ammonia nitrogen availability factor for volatilization. Ammonia nitrogen availability varies depending on weather conditions and application method. The following is an annual average for the growing season:

VR = 0.70 for surface application;
VR = 0.90 for surface application followed by incorporation;
VR = 0.95 for subsurface injection.

Alternate VR rates for specific months based on climatic conditions and management conditions may be considered upon submittal of scientific supporting documentation and approval by the department. The alternate VR rates shall be listed in the approved Operation and Maintenance Manual.

(2) **CNR** means crop nitrogen requirement for crop growth as follows:

CNR = [crop yield unit / acre] x [lbs N / yield unit]

Note: Nitrogen requirements should include entire plant (grain + stock).

(3) **sPAN** means plant available nitrogen from soil as follows:

sPAN = [% organic matter in soil] x [OR factor]

OR = nitrogen availability factor for soil organic matter based on soil CEC and crop season:

Annual Crops:

OR Factor by Soil CEC Ranges

Growing Season	CEC ≤ 10	CEC 10-18	CEC ≤ 18
Summer	40	20	10
Winter	20	10	5

Perennial Crops:

For forage crops, the sPAN contribution is minor because the residual plant material is not incorporated into the upper soil horizon. The approved reference publications listed under this permit have already subtracted this factor from the CNR tables. Therefore, the sPAN factor can be considered to equal zero for purposes of the PAN calculations. If other publications are used, they must be approved by the department and listed in the approved Operation and Maintenance Manual along with appropriate sPAN factor as determined by the department.

(4) The waste application rate for land in the USDA Conservation Reserve Program (CRP) or idle land where crops are not harvested shall not exceed a PAN of 65 pounds nitrogen / acre / year for permanent cover crops or 100 pounds of total nitrogen per acre / year.

C. SPECIAL CONDITIONS (continued)

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

   (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;

   (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

   (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;

   (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;

   (e) There shall be no significant human health hazard from incidental contact with the water;

   (f) There shall be no acute toxicity to livestock or wildlife watering;

   (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;

   (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

7. Outfalls must be marked in the field.